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AMENDMENTS TO THE ABSTRACT

Please amend the abstract of the disclosure as follows.

ABSTACT OF THE DISCLOSURE

~~A magnetic field sensor is described incorporating a plurality of magnetic stripes spaced apart on the surface of a substrate such that stray magnetic fields at the ends of the magnetic stripes are magnetostatically coupled and the magnetic stripes are magnetized respectively in alternating directions, nonmagnetic conductive material positioned in the spaces between the magnetic stripes and electrodes for passing current crosswise through the plurality of magnetic stripes to detect a change in resistance by the giant magnetoresistive effect (MGR). The invention overcomes the problem of detecting low magnetic fields since the magnetic fields required to saturate magnetic stripes depends on the magnetostatic coupling which in turn can be controlled by the geometry and position of the magnetic stripes in the sensor.~~

A magnetoresistive sensor includes a substrate and a layer of ferromagnetic material formed over the substrate. A plurality of nonmagnetic regions is formed within the layer of ferromagnetic material. Magnetic flux paths form around each one of the plurality of nonmagnetic regions when the layer of ferromagnetic material is not in a magnetic field. The flux paths are contained completely with the layer of ferromagnetic material and do not penetrate into the plurality of nonmagnetic regions. The sensor also provides for detecting a change in resistance through the layer of ferromagnetic material as a function of a magnetic field applied to the layer of ferromagnetic material.